



Click here to agree: Managing intellectual property when crowdsourcing solutions

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Abstract Tapping into the creativity of a crowd can provide a highly efficient and effective means of acquiring ideas, work, and content to solve problems. But crowdsourcing solutions can also come with risks, including the legal risks associated with intellectual property. Therefore, we raise and address a two-part question: Why—and how—should organizations deal with intellectual property issues when engaging in the crowdsourcing of solutions? The answers lie in understanding the approaches for acquiring sufficient intellectual property from a crowd and limiting the risks of using that intellectual property. Herein, we discuss the hazards of not considering these legal issues and explain how managers can use appropriate terms and conditions to balance and mitigate the risks associated with soliciting solutions from a crowd. Based on differences in how organizations acquire intellectual property and limit associated risks, we identify and illustrate with examples four approaches for managing intellectual property (passive, possessive, persuasive, and prudent) when crowdsourcing solutions. We conclude with recommendations for how organizations should use and tailor the approaches in our framework to source intellectual property from a crowd. © 2016 Kelley School of Business, Indiana University. Published by Elsevier Inc. All rights reserved.

1. Crowdsourcing: Let's get legal

While the term 'crowdsourcing' may be relatively new, the practice of outsourcing an organizational activity to a crowd has been around for centuries.

The Australian flag and the marine chronometer that Captain James Cook used to navigate the Australian coastline were both products of crowdsourcing. Toyota also crowdsourced its logo in 1936, with the winner chosen from 27,000 submissions (Morozov, 2014).

The internet and social media have brought crowdsourcing into the 21st century by facilitating access to hundreds of millions of potential participants (Kietzmann, Hermkens, McCarthy, & Silvestre, 2011). Consequently, crowdsourcing today has been

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defined as an “online, distributed, problem-solving and production model that leverages the collective intelligence of online communities to serve specific organizational goals” (Brabham, 2013, p. xix). Organizations employ crowdsourcing to construct, assimilate, and harness crowd capital that is used to (Prpić, Shukla, Kietzmann, & McCarthy, 2015):

- Make decisions between known choices (*crowd voting*);
- Undertake small jobs (*microtask crowdsourcing*); and
- Innovate and solve problems (*crowdsourcing solutions*).

While the legal aspects of crowdsourcing can be diverse—involving tax, investment, and employment law—we focus specifically on the intellectual property issues that arise when crowdsourcing solutions. An understanding of the legal considerations surrounding intellectual property is crucial to leverage the crowd successfully and safely in search of innovative solutions.

Two examples highlight the importance of firms recognizing the potential intellectual property management risks associated with crowdsourcing solutions. One is the case of PhantomAlert, a mobile app that alerts drivers regarding traffic conditions, road hazards, and traffic enforcement locations, based on data crowdsourced from its users. PhantomAlert recently asserted claims against Waze, a competing traffic management app acquired by Google in 2013 that also sources its data from the crowd. In 2015, PhantomAlert successfully registered copyright ownership of its compiled data, and subsequently alleged that Waze copied its proprietary points of interest for use within the Waze app—without PhantomAlert’s permission. On March 4, 2016, a California court ruled that PhantomAlert’s claim of copyright infringement could proceed (*PhantomAlert Inc. v Google Inc. et al.*, 2016). For businesses, litigation associated with crowdsourced content like this can be a risky and expensive exercise.

A second example illustrates the non-legal risks that can surface from intellectual property management, relating to mismanaged expectations and perceived unfairness. Moleskine, a popular stationery brand, partnered with DesignBoom, an advertising agency, to crowdsourcing the design of a logo for its blog. Moleskine offered a €7,000 prize for the best design but retained property rights for all submissions. Only one winner would benefit, yet all participants would lose ownership of their designs

with no compensation. Additionally, the contest terms and conditions were written in confusing legal jargon. As a result, the design community lashed out at Moleskine for what was perceived as profiteering and free riding on the intellectual property rights of creative fans of the brand (Opp, 2011). Moleskine’s lackluster response to criticism on Facebook—including the company’s claims that it was not the only organization to engage in such a strategy and that contributors were not obligated to participate if they felt that the conditions were unfair—prompted further backlash and, subsequently, an apology from the company.

Both of these examples demonstrate organizations’ need to consider intellectual-property-related risks when sourcing solutions from the crowd. Therefore, in this article, we aim to answer a two-part question: How—and why—should organizations deal with intellectual property issues when engaging in crowdsourcing solutions? To do this, we first present some recent scholarly contributions related to managing intellectual property and crowdsourcing. Second, we discuss the importance of terms and conditions as the principal legal mechanism for organizations to acquire appropriate intellectual property rights and limit risks. We then present a framework for understanding and responding to issues regarding intellectual property management in crowdsourcing. The framework is based on two legal considerations that organizations must be mindful of when engaging in solutions crowdsourcing: the need to acquire sufficient rights from the crowd to achieve organizational objectives, while also ensuring that the terms and conditions limit liability exposures associated with using crowd content. Based on these two caveats, we present and illustrate four different approaches to managing crowdsourced intellectual property. We conclude by offering recommendations for businesses managing intellectual property when crowdsourcing solutions.

2. Hazardous material: Intellectual property-related risks from crowdsourcing solutions

Crowds can serve as a significant resource for firms and offer potential payoffs if their contributions are valuable and used effectively (Franke, Keinz, & Klausberger, 2013). Crowds, however, are not governed by employment laws that might stipulate employer rights ownership of employees’ creative works. As a result, in designing crowdsourcing endeavors, organizations must incorporate plans

for obtaining permission from rights owners to use their crowdsourced content. Likewise, employers are vicariously liable for the illegal actions of employees, but not for the illegal actions of contractors or solutions providers from an independent crowd. Thus, the default rights and liabilities are opposite in employment and crowdsourcing situations. By default, employers have both rights and liabilities in respect to employee-sourced content. Solution seekers have, by default, no rights or liabilities in respect to crowdsourced content. This creates a unique situation for organizations and presents a number of challenges related to the crowd's property rights; managers must become aware of these before entering into crowdsourcing arrangements. The process of making decisions about the acquisition of rights and limitation of liabilities associated with content sourced from the crowd is what we refer to as *intellectual property management*.

Much of the scholarly literature pertaining to intellectual property in crowdsourcing discusses the need to protect the organization legally from contaminated content (i.e., content owned by third parties) while maximizing contributions from the crowd. The basic dilemma is this: The more a business demands of a crowd to meet its own needs (i.e., aggressive legal approach to managing intellectual property), the less the crowd is inclined to participate in the exercise. A less aggressive legal approach makes a crowd more inclined to participate but jeopardizes the success of a crowdsourcing project with more legal risk.

The importance of finding an equalized approach is highlighted in an article about the limitations of crowdsourcing, wherein [Aitamurto, Leiponen, and Tee \(2011\)](#) suggested that the value of intellectual property depends on balancing risk mitigation with participation. Expressing a similar sentiment, [Pedersen et al. \(2013\)](#) explained that the success of a crowdsourcing campaign may rest on the organization's ability to attract and retain a knowledgeable and skilled crowd, hinting at the need for a persistent and mutually beneficial arrangement between the crowd and the organization.

In the area of citizen science (i.e., scientific research assisted by the crowd), planning how to address users' intellectual property rights must be considered when commercialization of a solution is expected or sought. It has been argued that crafting terms and conditions in plain language and properly acknowledging participant contributions through fair recognition are both important ([Scassa & Chung, 2015](#)). Similarly, [Alexy, Criscuolo, and Salter \(2011\)](#) recommended that the terms and conditions of crowdsourcing initiatives address stipulations about the ownership, originality, and use of intellectual

property generated therein—and that crowd participants be required to sign in order to participate. Specifically, it is important to have explicit terms and conditions that protect the organization's intellectual property and guard against the risk of contamination ([Alexy et al., 2011](#)).

While the extant literature stresses balancing the crowd's needs with those of the organization, there has been little discussion about how organizations can actually do so. We build on this by presenting a framework of intellectual property management approaches that organizations can consider when crowdsourcing solutions. Next, we present the role of terms and conditions in crowdsourcing, its impact on intellectual property management, and how it can influence the success of crowdsourcing beyond legal ramifications.

3. Terms and conditions apply

A crowdsourcing initiative represents an agreement between the organization and crowd members; thus, it is vital that the nature of the agreement be firmly established. The legal cornerstone of any crowdsourcing initiative is a carefully considered set of contractual terms and conditions. Terms and conditions may outline how intellectual property will be handled, contain provisions intended to limit exposure to third-party liability, and include information that can attract or repel contributors.

It is important to note that potential crowd contributors can be motivated to participate—or dissuaded from participating—based on their perceptions of fairness regarding how organizations will treat their intellectual property. In a study considering the antecedents and consequences of expectations of fairness in crowdsourcing, [Franke et al. \(2013\)](#) found that perceptions were influenced by the distribution of value relating to profits, reputation, and intellectual property, as well as the transparency of terms and conditions. Expectations of fairness, in turn, influenced the tendency of potential contributors to participate, and expectations around intellectual property had the strongest influence on propensity of the crowd to participate. Stipulations relating to these expectations are outlined in the terms and conditions; they should be molded to align with crowdsourcing goals while keeping fairness and transparency in mind to protect the firm and maximize contribution from the crowd.

The degree to which all crowdsourcing participants understand their legal rights and responsibilities is impacted significantly by the language and form of the governing contract, and is key among

the determinants of transparency and perceived fairness. In some cases, individually negotiated intellectual property agreements—conducted by expert crowdsourcing intermediaries such as NineSigma, Innocentive, and eYeka—might be provided as part of a service offering. More often, however, standard-form contracts are typical.

There are various ways in which crowd members can agree and be bound to online contracts, termed *modes of adhesion*. Among these, click-wrap agreements tend to be the most commonly used. ‘Click-wrap’ is derived from the licensing practice associated with software and media sold in plastic shrink-wrap. Courts agree that when customers open such shrink-wrap packaging, they contractually agree to whatever is printed on it. Click-wrap agreements are the internet equivalent, whereby relevant terms and conditions are presented digitally to the participant, who must then ‘sign’ the contract by clicking to agree. Alternatively, a browse-wrap agreement is much less conspicuous and is formed merely by accessing or using a website containing a link to relevant terms and conditions. The terms are usually accessible through a link in small font and dull color at the bottom of a web page, and stipulate that access or use of the web page/platform legally binds users to the contents of the agreement.

It can be argued that participants who submit content do so with the expectation that their work may be used by the soliciting organization. The premise of implied license is a defensive measure employed by firms to convey that permission was given to use a copyrighted work. However, an implied license should only be considered as a last resort (i.e., absent a click-wrap or browse-wrap agreement) to correct mistakes. It is certainly not best practice for an organization to consider implied license as a means of limiting liabilities.

Contracts play a crucial role in crowdsourcing initiatives, serving an important purpose in perceived transparency, managing expectations, and avoiding backlash from the crowd. As mentioned, crowds’ expectations and perceptions of fairness can greatly influence their decision to participate (Franke et al., 2013). In any given crowdsourcing effort, if the mode of adhesion can be perceived as nontransparent or unfair, this can negatively influence participation or cause backlash following participation. In the same way that organizations must consider not only the legal aspects of the modes of adhesion but also the non-legal ramifications, so too must they consider the legal and non-legal ramifications related to shaping the terms and conditions.

In the following section, we present two important legal considerations for organizations—acquiring rights and limiting liabilities associated with intellectual property—that impact the stance of the terms and conditions of a crowdsourcing initiative. Together, these considerations form the basis of a framework that can help organizations determine the most appropriate formulation of terms and conditions. This framework facilitates specific, actionable decisions about how to balance the need between firm protection and participation maximization, and identification of operational components to increase crowdsourcing success.

4. Managing crowdsourced intellectual property

In this section, we show how certain factors—such as appropriate terms and conditions—can be used to acquire intellectual property and limit liabilities. We also discuss the impact of the dimensions of our framework in managing crowdsourced intellectual property.

4.1. Acquiring rights

The first dimension of the framework centers on understanding how the acquisition of intellectual property can vary. Some crowdsourcing initiatives may have no need or desire to own crowdsourced intellectual property. Such is the case with Call for Targets, a crowdsourcing initiative focused on collaborative drug discovery, which specifies that no transfer of IP rights is required (Lessl, Bryans, Richards, & Asadullah, 2011). This may not always be the case, though, as many organizations will—to varying degrees—wish to appropriate intellectual property from the crowd. Therefore, acquiring is a critical legal aspect of *crowdsourcing intellectual property*, which we define as the degree (low to high) to which an organization seeks to acquire the intellectual property rights of crowd solutions. The lowest level of rights acquisition is one in which the organization takes no measures to acquire any intellectual property rights. At the other extreme, the highest level of rights acquisition is one in which the organization takes measures to fully and exclusively acquire all intellectual property rights of a crowd, as well as its solutions.

The acquire decision can be a major source of legal risk and confusion, as expectations may differ between the crowd and the organization seeking solutions. In any crowdsourcing scheme, it is imperative that the organization acknowledge participants’ expectations to have ownership of their

created work, determine an appropriate intellectual property acquisition strategy, and ensure that participants understand the degree to which ownership is transferred to the organization by outlining this in the terms and conditions.

Fully acquiring intellectual property necessitates that crowdsourcing participants assign all rights exclusively to the solutions seeker. In this scenario, the organization takes full ownership of the submitted intellectual property. If no restrictions are specified in the written assignment of title, the organization is able to further transfer or license the content to third parties. Following a transfer/assignment of rights, the original creator can no longer use or authorize others to use the content.

A less extreme approach toward acquisition entails obtaining a license to the content as opposed to a full assignment of ownership. In such situations, the licensee's (i.e., solution seekers) rights and responsibilities will be determined according to the specific terms of the license. An exclusive license prevents a licensor from re-licensing those rights without explicit permission from the licensee. A non-exclusive license can be an appropriate approach when seeking solutions from the crowd, especially in creative settings. This arrangement allows a crowd contributor to continue using their submitted content and license it to other parties, while sub-licensing rights can enable the business seeking solutions to do the same.

In all of these situations, there will be details regarding the scope of the assignment or license that will impact where the approach falls on the spectrum of rights acquisition. For example, agreements may vary as to duration (i.e., time-limited or permanent), location (i.e., territorial or world-wide), format (i.e., digital, analog, or any format), and revocability (i.e., revocable or irrevocable), amongst other details. Considerations also exist regarding compensation, with terms ranging from entirely royalty-free to one-time payment to pay-per-use models, which can impact how fair an arrangement may be to the crowd.

4.2. Limiting liabilities

The second dimension in our framework centers on legal risk associated with the presence of any third-party-owned intellectual property that may be included in content submitted by the crowd. When participants include content in their submissions that they themselves did not create or are unauthorized to reuse/redistribute, this is considered *intellectual property contamination*. Intellectual property contamination is a risk that is common not just to the crowdsourcing of solutions, but also to innovation in

general; it involves using, combining, and building on existing content.

Limiting liabilities can be a difficult balancing act, as there are legal barriers to what can be contracted with crowdsourcing participants. Specifically, agreements are only binding for those in a relationship governed by the contract. This means that a participant cannot legally limit the rights of third parties whose intellectual property rights may be infringed by the competition's organizer. If participants include protected content in their submissions that is not their own, it presents a considerable risk to the organization and can lead to costly and drawn-out litigation.

Potential contamination problems are related to the ease with which participants in a crowdsourcing initiative can integrate unlicensed audio, visual, or technical elements into their own work. This could include copyright-protected music dubbed onto a user-generated video; a copyright-protected image included in a collage; a trademarked word, slogan, or logo mixed into a submission; or a patented invention or confidential information integrated into a proposed technical solution. While participants are afforded the chance of a 'fair use' defense, an organization seeking solutions may not be so fortunate—particularly if there is obvious commercial motivation. In such situations, it is rarely defensible to plead ignorance or try to shift blame upon others.

We define the *limiting liabilities* dimension of the framework as the degree (low to high) to which organizations seek to safeguard themselves from potential liabilities associated with crowdsourced solutions. The lowest degree of liability limitation is one in which the organization takes no legal measures to limit its liabilities regarding contamination. At the other extreme, the highest degree of liability limitation is one in which the organization takes extensive measures to protect itself from any contamination risks that could accompany crowdsourcing solutions.

Limiting liabilities in crowdsourcing is not merely a matter of being proactive or reactive. Rather, this dimension of our framework reflects the nature of the legal steps taken to address liability issues that may later arise. A number of factors can influence how exposed or reserved an organization can be in terms of limiting liabilities. Of course, organizations can take non-legal steps to limit exposure to liabilities from intellectual property contamination, such as vetting each submission—or, at least, selected submissions—for potential problems.

One way in which the firm can position itself legally is via the 'terms and conditions' provisions

surrounding originality and ownership of intellectual property. While the risk of intellectual property contamination can be a motivating factor behind imposing onerous and extensive terms and conditions (Alexy et al., 2011), their potential negative impact on participation should be weighed. For example, requiring solution providers/participants to formally prove ownership of intellectual property rights for their submissions—such as through a registered copyright—provides more protection for the firm, but creates more work for contributors.

Alternatively, or in addition to this, organizations can require/obtain participant confirmation that the submissions do not infringe upon any third parties' intellectual property rights. Such specific promises may be referenced as a representation or a warranty. A representation is a statement about a material fact that induces the other party to enter into a contract. For example, a participant may represent that she has the legal authority to enter into an agreement to license intellectual property to the crowdsourcing organization. Breach of representation may entitle the other party to cancel the contract and recover costs.

A warranty is slightly different. It is a promise that something is or will be true, and entitles the other party to be compensated if matters turn out otherwise. For example, a participant may warrant that there is no unlicensed third-party content in a submission or that any third-party content in a submission has been authorized for use. They may also warrant that the submission is free of all liens or demands by any third parties and that it has not been entered in other contests or distributed previously in any media, which otherwise could also be a source of liability for an organization.

An even more cautious approach, at the higher end of the spectrum of liability limitation, would be to include an indemnity provision in a contract formed either upon a provider's submission of a possible solution or upon being selected as a winner by the solutions seeker. An indemnity clause might state, for example, that the participant must pay or reimburse any costs associated with an infringement claim by a third party against the crowdsourcing organization. However, an indemnity clause does not guarantee that a crowd member has the means to pay or reimburse these costs.

In sum, as obtaining tainted content can be worse than obtaining no content at all, caution must be exercised to avoid a lawsuit by a third party that claims intellectual property rights in crowdsourced content. And while this protective stance is

important, organizations must also consider how this might motivate or dissuade participation from the crowd.

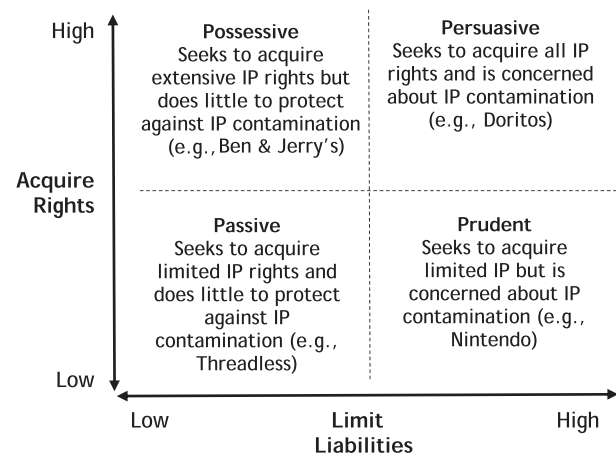
5. Four approaches and illustrative examples

Having introduced key legal considerations for crowdsourcing solutions, we now describe how these combine to generate a framework of four approaches for managing crowdsourced intellectual property: passive, possessive, persuasive, and prudent (see Figure 1). In this section, we explain each approach; describe its benefits and drawbacks, as well as what is involved; and provide an illustrative example. The four examples were selected to demonstrate how intellectual property-related terms and conditions can vary, and how they can be designed appropriately to match the legal considerations. A summary of the examples and their approaches to acquiring, limiting, and managing intellectual expectations is provided in Table 1.

5.1. Passive: Threadless

Organizations that employ a passive approach to managing crowdsourced intellectual property are not concerned with acquiring intellectual property rights from the crowd and are less active in limiting liabilities. This approach may be more common with organizations that use and experiment with crowdsourcing of solutions for the first time,

Figure 1. Legal approaches to crowdsourcing intellectual property



IP = intellectual property

Table 1. Example organizations and approaches to managing crowdsourcing intellectual property

Approach to managing crowdsourced IP	Example organization and campaign	Presentation of terms and conditions	Summary of the IP management approach
Passive	Threadless	<ul style="list-style-type: none"> - Click-wrap - Dense terms - Well-structured - Includes payment schedule - Word count = 7,563 	<ul style="list-style-type: none"> - Rights acquired by non-exclusive license - Management of liabilities relies on norms-based community enforcement of IP rights
Possessive	Ben & Jerry's flavor submissions portal	<ul style="list-style-type: none"> - Browse-wrap - Easy to read and user-friendly - Word count = 722 	<ul style="list-style-type: none"> - Rights acquired by transfer with no management of liabilities
Persuasive	Doritos—Crash the Super Bowl	<ul style="list-style-type: none"> - Click-wrap - Long, paragraph-sized clauses - Uppercase font that impairs readability - Word count = 9,071 	<ul style="list-style-type: none"> - Rights acquired by transfers for all semifinalists and by non-exclusive license for all other participants - No liability for third-party content or errors on the platform - Indemnity clause includes Frito-Lay and its affiliates
Prudent	Nintendo's #ZeldaFan contest	<ul style="list-style-type: none"> - Using hashtag #ZeldaFan signifies agreement - Easy to read - Word count = 2,846 	<ul style="list-style-type: none"> - Rights acquired by non-exclusive license - Winner required to execute and deliver a release of liability - No professional content allowed - Must be original, non-commercial work

especially organizations that are not equipped with legal teams to forecast all the risks associated with intellectual property in crowdsourcing. This kind of approach may also exist when other protection mechanisms are in place to mitigate the risk of liability, such as a self-governing community within the crowd.

Such is the case with Threadless, one of the world's longest-running and most successful crowdsourcing companies. Users submit t-shirt designs, which are then voted on by the crowd and sold by the company (Lakhani & Kanji, 2008). The terms and conditions of the Threadless website reflect intellectual property arrangements based on community expectations and social norms, and do not focus entirely on formal clauses limiting liabilities. This places Threadless on the low end of the liability limitation dimension. Additionally, by acquiring limited, non-exclusive rights, Threadless seeks to obtain only that which is sufficient to serve the purposes of the company, allowing users to retain ownership of the rights for their designs. The terms and conditions are structured in a way to encourage participation to the extent that users actively enforce intellectual property rights.

5.2. Possessive: Ben & Jerry's flavor ideas

Organizations that employ a possessive approach to managing crowdsourced intellectual property are very concerned with acquiring intellectual property rights from the crowd and are less active in limiting liabilities. Consider Ben & Jerry's, which has on numerous occasions leveraged the crowd's potential for ideas, both to market its brand and to generate original ice cream recipes and flavor names (Harman, 2016). Like many food and beverage companies, Ben & Jerry's operates a web portal via which ideas can be submitted. These 'unsolicited' idea portals exemplify a possessive approach: Ben & Jerry's acquires ownership of all the submitted suggestions but does not employ extensive measures within the terms and conditions to limit its liabilities in the case of intellectual property contamination.

Via its open idea portal, Ben & Jerry's seeks to acquire a transfer of rights in unsolicited ideas from the crowd. Here, the terms limiting liabilities are less comprehensive than those involved when ideas are directly solicited through a limited-time campaign. Ben & Jerry's dedicates a single clause within the terms and conditions to making the crowd aware of the need for original submissions that

are within a crowd member's rights to give to the company. The company does suggest that crowd contributors obtain advice from a lawyer or seek legal protection before they submit suggestions to the company.

On a practical level, Moleskine's experience with crowdsourcing was also possessive, as its terms and conditions were concentrated heavily on acquiring a transfer of rights and less on risk management. The backlash that followed the mismanagement of expectations on social media highlights how important it is to manage the expectations of creative consumers (Berthon, Pitt, McCarthy, & Kates, 2007) that make up an organization's crowd. A purely possessive approach would be ill-suited to the crowdsourcing needs of a business and it is unlikely that a company would employ such a high-risk strategy.

5.3. Persuasive: Doritos and its Crash the Super Bowl campaign

Organizations that employ a persuasive approach to managing crowdsourced intellectual property are very concerned with acquiring intellectual property rights from the crowd and are active in limiting liabilities. These firms exhibit a high degree of acquisition and take extensive measures to protect themselves from intellectual property contamination liabilities. The Crash the Super Bowl crowdsourcing contest, held by Frito-Lay brand Doritos, is an example of a persuasive approach. During the decade spanning 2006–2016, Doritos invited amateur filmmakers to produce Doritos advertisements for the chance to win a cash prize and have their commercial featured during the Super Bowl (Monllos, 2015). Over 36,000 entries were submitted in the 10 years the crowdsourcing contest ran (Robinson-Jacobs, 2016). Doritos sought to acquire extensive rights from the crowd by obtaining a non-exclusive license from all participants and a full transfer of ownership from the semifinalists. Terms and conditions of the initiative—over 9,000 words long—were extremely comprehensive, covering Doritos from almost any conceivable liability and with emphasis placed on the need for original content.

While Crash the Super Bowl proved successful for Frito-Lay, some in the creative community responded less enthusiastically. Over time, the contest attracted professional submissions, raising competitive barriers far beyond what the skilled individual could produce. The company's practices were also criticized by some as cheap and exploitative, reaping the benefits of thousands of contributions while stripping semifinalists—even those

who did not win—of the intellectual property rights to their own creative work.

5.4. Prudent: Nintendo

Organizations that employ a prudent approach to managing crowdsourced intellectual property are not concerned with acquiring intellectual property rights from the crowd and are active in limiting liabilities. An example of this approach involves Nintendo Canada, which used social media to launch a campaign with the intention of securing crowd-created content for promotional purposes at select Legend-of-Zelda-inspired symphony concerts (Nintendo, 2016). Since many of Nintendo's Zelda fans are minors, this kind of contest also brings to the forefront the age-related legal implications of such a campaign. To target this segment of the crowd, Nintendo leveraged Facebook and Twitter to engage its core consumer base and increase brand awareness.

In its terms and conditions, the Nintendo initiative did not state any transfer of ownership; thus, it can be assumed that acquisition of property rights would be reserved only for the winning submission. As such, Nintendo's initiative falls toward the low end of the dimension of rights acquisition. In terms of protection, however, the initiative imposed extensive measures to limit the company's liabilities. In addition to requiring that the winner of the grand prize be the parent or guardian of a minor aged at least 13 years old to enter, Nintendo limited its third-party liabilities by necessitating that brand names, logos, and products be covered up within the submissions. It also limited its liabilities by stipulating that contestants agree to, without limitation, any affidavits and/or license Nintendo might request.

Nintendo's terms and conditions were written in a way that a 13-year-old could understand. The company also outlined in plain language what form the most common instances of third-party intellectual property contamination could take and clearly told the crowd how to avoid them. However, Nintendo's use of a hashtag as a form of browse-wrap adhesion to bind contestants to its terms and conditions could present issues for the company, especially considering its young audience.

6. One size doesn't fit all: Customizing approaches

While there is value in organizations developing and using standard legal templates for each of the intellectual property management approaches in our framework, it is important to ensure that the terms

and conditions are tailored to suit specific crowdsourcing goals. Consequently, we now discuss criteria and recommendations for tailoring approaches to managing the expectations of the crowd. We also outline the role and benefits of using intermediary organizations to run a crowdsourcing campaign.

6.1. Aligning motivations and rewards

With all the approaches, but especially the possessive and persuasive approaches entailing acquisition of rights, it is important for organizations to offer adequate incentives for people to participate in a crowdsourcing campaign. As participant motivation is linked to participant expectations, understanding why people will join a particular crowdsourcing campaign will shape the approach to managing the intellectual property of submissions.

Participants can be extrinsically motivated, expecting financial rewards that include cash prizes, some share of the value of a winning solution, and other rewards such as job offers, free supplies of the product, and potential recognition and fame. Expectation of a reward will be amplified if participants are unlikely to retain any rights and have to accept all liabilities. Also, the required time, effort, and resources that participants would expend should be reflected in the rewards, recognition, and probability of a crowd member having their solution chosen. It is much more likely that non-winning contributors who are not compensated will raise intellectual property disputes.

When participants are intrinsically motivated they will typically also expect some pecuniary reward if their solution is acquired for use, but their primary motivation for contributing is to experience the campaign or to test themselves against the crowdsourcing challenge. For example, participants in the crowdsourced science fiction film *Star Wreck: In the Pirkinning* were driven by the pleasure of helping to create the film and were relatively unconcerned about how their intellectual property was appropriated and used. Similarly, many Threadless participants love the mission and community of the organization, and Threadless is considered to have balanced terms and conditions that are fair to both the company and the crowd (Brabham, 2010). In these examples, underlying the intrinsic motivation is *organizational identification*, whereby individuals feel a sense of connection to an organization (Ashforth & Mael, 1989; Mael & Ashforth, 1992) that positively affects their willingness to engage in activities for the organization.

Organizations should consider that creative contributions not only consist of intellectual property, but also emotional property (Berthon, Pitt,

Kietzmann, & McCarthy, 2015). While intellectual property encompasses the legal rights to creations of the mind, emotional property “is the emotional investment in or attachment to creations of the heart and mind” (Berthon et al., 2015, p. 46). Most participants will be driven by both extrinsic and intrinsic motivations, and these will be linked to the intellectual and emotional components of their creations. Consequently, the terms and conditions of an intellectual property management approach should ensure that participants’ intellectual property is not leveraged at the expense of their emotional property. If a crowd suspects opportunistic profiteering pertaining to its intellectual or emotional property, this can be a strong motivator in withholding information or avoiding participation altogether.

6.2. Let’s be clear

Even when effort is taken to detail a mutually beneficial set of terms and conditions, problems can arise if organizations are not clear or forthright in the presentation of this arrangement. Even more dangerous than an obviously exploitative arrangement is an exploitative arrangement that is hidden. A person should be able to find, read, and comprehend intellectual property terms and conditions. It is important that companies attempt to be as transparent as possible and use language that can be understood by the crowd, without sacrificing the legal protection afforded to legally-sound terms and conditions.

If an organization seeks a full transfer of ownership, the terms and conditions must clearly indicate this. Using plain language is recommended. The ramifications of not being clear and transparent and hiding behind a wall of legal jargon can prove detrimental to a brand. Catching the crowd off guard can produce disgruntled individuals who are motivated to take action. It is important that the terms and conditions to which participants agree, as well as the manner in which they agree to them, are easily understood by all parties.

6.3. Consider an intermediary or existing platform

One way in which organizations continue to crowdsource is via crowdsourcing service providers. In employing such a service, the firm itself does not have to deal with all the strategic, logistical, and legal issues connected with a crowdsourcing initiative; rather, legal obligations flow through the third-party provider. Crowdsourcing providers leverage the crowd by running campaigns that are public and open to anyone or by targeting

specialized experts working on dedicated, closed-door projects. An example of the latter involves Unilever, which engaged the crowdsourcing provider eYeka to successfully attract, adapt, and secure approval for crowdsourced intellectual property for use in a Philippines-based advertising campaign (Roth, Pétavy, & Céré, 2015). Tapping crowdsourced content without such approval, known legally as a chain of title, exposes businesses to major legal risks over the ownership of the intellectual property.

Not all platforms provide the same protection, and care should be taken when choosing one. Specialized crowdsourcing providers such as InnoCentive, NineSigma, eYeka, and Topcoder successfully leverage the aggregate output potential of their users by finding innovative solutions for their clients. InnoCentive acknowledges that management of intellectual property is of paramount importance to its business model. Over 65% of the company's collaborators have a master's degree or Ph.D. and its IP provisions are carefully tailored to the type of challenge (Bonadio & Nichols, 2013).

7. Final thoughts

Crowdsourcing is a promising and economical method of harnessing the expertise and skills of a large number of individuals. There are, however, associated risks that should be thought through before engaging a crowd for a solution. In this article, we set out to highlight the importance of understanding the core issues and rules for managing intellectual property rights when crowdsourcing solutions. We discussed the use of terms and conditions for managing these risks, focusing on two legal issues (acquiring rights and limiting liabilities) and highlighting the importance of managing crowd expectations. In addition, we presented a framework of four approaches and recommendations to manage crowdsourced intellectual property, along with relevant examples. The proffered framework illustrates the legal approaches that organizations can use to manage the value, risks, and effectiveness of crowdsourcing. In the end, a reciprocating relationship emerges. The legal approach to managing crowdsourced intellectual property shapes the crowdsourcing campaign while, at the same time, the campaign shapes the legal approach.

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